Developing alternative payment models under MACRA
Clinical and financial constructs

As payment for healthcare increasingly transitions from fee-for-service (FFS) to value-based approaches, alternative payment models (APMs) have become a popular way to tie payment to quality of care. Alternative payment models create both opportunities and challenges, and they are being implemented both by commercial payers and through the Medicare program.

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) created incentives for providers to participate in APMs. In particular, APMs that meet the following criteria will be classified as Advanced APMs under the Centers for Medicare and Medicaid Services (CMS) Quality Payment Program (QPP), which implements MACRA:¹

- Require the use of certified electronic health record (EHR) technology
- Provide payment based on quality measures
- Require participants to bear more than a nominal amount of risk or are a Medical Home Model expanded under CMS Innovation Center authority

Participants who meet thresholds based on the percentage of their patients treated or payments made through Advanced APMs will be eligible to receive incentive payments.

MACRA also created mechanisms for proposing new physician-focused alternative payment models through the Physician-Focused Payment Model Technical Advisory Committee (PTAC). The PTAC has 11 members who review proposals and make recommendations to the Secretary of the U.S. Department of Health and Human Services (HHS).² Based on the PTAC recommendation, the Secretary of HHS will work with CMS to implement the proposed model and on what scale. In the event that a model is implemented by CMS, groups of providers that participate in the APM may receive incentive payments or other benefits (such as reductions in quality reporting requirements) based on their APM participation.

Proposals for APMs can be developed and submitted by a wide variety of organizations, including patient organizations, providers, payers, or life sciences companies. In order to develop a robust proposal, submitters need to consider both important clinical and financial aspects of their proposed APMs. Particularly, the PTAC has noted that certain key aspects of proposals have been lacking in the past, including identifying existing barriers in current payment systems and performing data analysis in support of designing APM payment methodologies.³ This paper explores key clinical and financial considerations that need to be addressed in a robust APM proposal.

Clinical construct

An overarching aspect of defining the clinical construct when developing an APM is identifying the problem that the APM will solve. What aspects of robust clinical care are challenging to accomplish in the current environment? The solution should be defined in terms of clinical changes to improve care.

IDENTIFYING AREAS OF CARE THAT NEED IMPROVEMENT

Defining the problem in terms of specific negative outcomes that are the result of suboptimal care facilitates the development of many other aspects of the APM. To do this, it is important to identify the specific negative outcome as well as:

- The beneficiaries who experience the negative outcome
- The severity of the negative outcome
- How often the negative outcome occurs

This can often be accomplished by analyzing large claims databases for specific negative outcomes (e.g., mortality, readmissions, or hospital-acquired infections) and correlating the outcomes with variation in the care beneficiaries receive.

DEFINING THE SOLUTION

After pinpointing negative outcomes that result from inefficient or suboptimal care, the next step is determining concrete clinical changes that will improve care for affected beneficiaries and reasons why those clinical changes are not already occurring. For example, if beneficiaries lack sufficient education to make informed treatment decisions, paying for the time providers spend educating patients could improve care. In order to articulate the scope of the APM and identify the benefits and costs associated

¹ Available at: https://qpp.cms.gov/docs/QPP_Advanced_APMs_in_2017.pdf.
² More information on the PTAC, the specific criteria for PTAC review of physician-focused payment model (PFPM) proposals, and what constitutes a PFPM is available at: https://aspe.hhs.gov/ptac-physician-focused-payment-model-technical-advisory-committee.
³ Available at: https://aspe.hhs.gov/system/files/pdf/255906/PTACLetterSecPriceLessonsLearned.pdf.
with implementation, it is critical to identify the types of providers that have the ability to control or improve beneficiary care and the entities (e.g., providers, payers, patients) that would benefit if the specific clinical changes were implemented.

BARRIERS TO OVERCOME
Although the specific clinical changes necessary to improve care may be straightforward or simple to implement, existing payment systems often contain barriers to actually implementing the changes. For example, with FFS payments, providers may be compensated for performing procedures but not for services that could alter treatment decisions like patient education. Also, existing claims systems were not created to facilitate testing novel payment arrangements under APMs. The volume and variability of claims as well as their interconnected nature make it difficult to adjust claims systems for a testing environment. Sometimes it is possible to make significant changes to the claims systems to test APMs, but often it is necessary to configure APM payment methodologies to conform to the existing claims systems (discussed more below), especially when the changes necessary are more complex.

Payer policies and statutory rules can also inhibit the provision of efficient care. Certain types of payments between providers that could otherwise enhance care coordination and communication may be disallowed. Additionally, rules like the CMS’s requirement that a three-day hospitalization must occur for skilled nursing facility (SNF) care to be covered may hamper the provision of efficient post-acute care. There is precedence for waiving certain CMS rules and federal laws in existing APMs, and entities developing APMs should consider proposing waivers to existing rules or laws that create barriers to improving care.

MEASURING THE IMPACT OF CARE REDESIGN
Whenever a change in payment is tested through an APM, it is imperative to maintain the quality of care provided to beneficiaries. Choosing measures for this purpose requires balancing the value of capturing additional information on care and outcomes to monitor the APM with the burden required to report these measures. Process measures, such as documenting that a patient has a care plan, are relatively easy to evaluate but may not align with specific patient outcomes. Outcome measures offer a more direct assessment of patient outcomes in an APM. When there is significant variation within an APM's patient population, it is usually necessary to risk-adjust outcome measures in order to draw comparisons among APM participants and between APM participants and nonparticipants.

In general, claims-based measures are less burdensome for participating providers to report, and payers have more control and insight into the measures. It is also possible to calculate claims-based measures for APM participants and nonparticipants. Measures that cannot be calculated from claims place a burden on participants to report on quality measures with information drawn from health records, lab results, and other sources.

APMs can also be used to test novel measures that do not have established histories, and APM developers can propose new measures to be collected in the APM. Information collected during the APM can then be used when seeking endorsement for the measure and may ultimately result in broader adoption beyond the APM.

Another important question is how these measures are used. Are they only used to monitor and evaluate the APM, or are they also used to adjust payments to APM participants? One requirement for Advanced APMs is to include quality measures and to tie those measures to the APM payments, and entities developing APMs need to consider which quality measures will align with the care redesign in the APM.

MULTIPAYER BENEFITS
Though much of the above discussion focuses on an APM with a single payer, there are also benefits inherent to APMs with a multipayer component. Proposing an APM to multiple payers is beneficial when care can be redesigned to benefit patients covered by different payers. When this is the case, achieving buy-in from multiple payers has several benefits to both participants and to payers. At the practice level, aligning incentives across payers can hasten care standardization and provision of efficient care. At the payer level, multipayer APMs encourage broader innovation in the healthcare system and lessen the burden on any one payer to drive innovation.

Financial construct
One of the reasons that patients can receive suboptimal care is because payment systems do not provide financial incentives that align with the provision of efficient coordinated care. The financial construct of an APM is the mechanism that will align provider financial incentives with the care redesign embodied by the APM’s clinical construct.

PATIENTS INCLUDED IN APM
In addition to being part of the clinical construct of an APM, identifying which patients will be in the model is also part of the financial construct. It is necessary to identify patients for the APM to assign financial accountability for these patients’ care to APM participant providers. Because multiple methods attributing patients to an APM are often feasible, it is important to tailor the attribution to the specific characteristics of the proposed APM. If the APM under development includes total cost of care for a

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The Bundled Payments for Care Improvement Initiative (BPCI), Comprehensive Care for Joint Replacement (CJR) model, and the Next Generation Accountable Care Organization (NGACO) model include waivers for CMS rules or federal laws.
broad patient population, one approach is to attribute patients to participants based on the plurality of evaluation and management services furnished in a time period prior to the APM performance period (prospectively) or during the APM performance period (retrospectively). However, if a patient’s enrollment in the APM begins with an acute event or the patient’s historical pattern of care is different from the care received in the APMs, the attribution methodology can be based on claims associated with the acute event or the specific types of care the patient receives in the APM.

SERVICES INCLUDED IN APM
An early step in designing the financial construct is to select the services that will be included in the APM payment methodology. The included services are typically temporally or clinically related to each other and can range from a narrowly defined set of services following a specific procedure or other trigger to all services furnished to a patient during a year. Most current CMS APMs include all or almost all services during the APM performance period, but the duration of any beneficiary’s enrollment in the APM can vary from less than a month to a full year.

In APMs with a narrowly defined set of included services, the services are often those that are directly under the control of the participating provider. Though participants may find such arrangements attractive, restricting to a narrow range of services in the APM limits both the upside and downside financial risks for participants. At the other end of the spectrum, APMs in which the provider has responsibility for all services furnished to attributed beneficiaries have the potential for larger financial gains or losses. Also, including a broader set of services furnished by practitioners of multiple specialties can create incentives for care coordination and increased communication.

Even in APMs that include a broader range of services, it is still possible to create a narrow set of clinically unrelated services that would be excluded from the APM (e.g., organ transplants in an orthopedic procedure episode).

Analyzing claims data and historical care patterns can help with determining which specific services to include in an APM. Studying historical sources of variation in spending and service utilization is a useful way to identify key opportunities to reduce unnecessary or inefficient care as well as the types of services that are furnished to beneficiaries with extremely high costs.

PAYMENT MODEL COMPONENTS
Entities developing APMs need to also consider the specific types of payments that will be made to participants in the APM. When there are barriers to changing existing claims payment systems, a common approach is a two-part payment model that incorporates:

1. An up-front payment to subsidize the care redesign necessary or to pay for the provision of specific enhanced services.
2. A performance-based or shared savings payment, often calculated retrospectively, to incentivize overall savings as compared to model targets.

APM developers should consider up-front payments if the APM will compensate participants for furnishing enhanced services that are not compensated under existing payment mechanisms. For example, the Monthly Enhanced Oncology Services (MEOS) payment in the CMS Oncology Care Model (OCM) pays for enhanced services such as 24/7 beneficiary access to a clinician with access to the beneficiary’s complete health record.

The performance-based payment or shared savings payment is a comparison of actual spending for services included in the APM against a financial target for the cost of those services. Under this approach, participants continue to be paid under existing payment mechanisms, with a retrospective reconciliation to determine the performance-based payments. Often the portion of the performance-based payment that the participant receives is linked with the participant’s quality performance (discussed below in the Savings and Tying Payment to Quality section). The payer implementing the model will typically discount the financial targets or else implement a shared savings percentage to ensure that it saves money when participants reduce spending below the target.

Retrospective performance-based payments are currently popular in CMS APMs, but it is worth considering whether to allow participants to elect a prospective population-based payment that replaces a portion of the anticipated cost of care, similar to partial capitation. Such payments can be coupled with a reconciliation to calculate shared savings for total spending (the sum of population-based payments and the portion of spending paid under preexisting mechanisms). Under such arrangements, the population-based payment provides flexibility to furnish efficient care during the performance period, and the shared savings calculation creates a similar incentive for the portion of spending that is paid fee-for-service (FFS).

Theoretically, a fully prospective population-based payment or episode payment could replace the combination of care management fee and performance-based payment; however, these payments can be challenging to implement, especially in FFS systems, where providers who are not participating in an APM expect to receive payment from the payer after rendering services to a patient.

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6 The NGACO model incorporates this type of payment. See https://innovation.cms.gov/Files/x/nextgenaco-methodology.pdf for additional information.
MEASURING FINANCIAL SUCCESS/BENCHMARKING METHODOLOGY

In APMs that incorporate a performance-based payment or a prospective payment, it is necessary to determine the financial target or appropriate level for the prospective payment. There are several considerations for entities developing APMs in setting these amounts.

The first is identifying an appropriate comparison patient population. If beneficiary enrollment into the APM does not require clinical information not contained in claims, this can be accomplished by implementing a claims-based algorithm using either contemporaneous or historical data. If the APM requires clinical criteria to enroll beneficiaries, advanced matching algorithms like propensity score matching may be necessary to ensure a balance between the comparison patient population and APM patient population, at least on characteristics observable in claims data. Another consideration when identifying a comparison patient population is whether to use a regional/national comparison, a comparison against a participant’s historical experience, or a blended approach. Especially in voluntary APMs, where potential participants opt into the APM, using a fully regional or national comparison patient population may set a target amount that is only attractive to providers that already furnish efficient care. Under such a scenario, it is likely that the payer would end up paying more than it would under the existing payment mechanisms. On the other hand, placing too high a weight on individual historical experience can “lock in” targets based on historically inefficient patterns of care. Thus, it is important to consider the characteristics of the potential providers when selecting a comparison patient population for determining financial targets or prospective payment amounts.

After selecting a comparison patient population, the second consideration is risk adjustment. One approach is to implement the CMS hierarchical condition categories (HCC) risk adjustment model. This approach is also the basis for risk adjustment in Medicare Advantage. However, for models with a narrow beneficiary population or a short duration, the HCC risk adjustment model may not fully account for the observed variation in utilization or spending. Thus it is important to identify information in claims data that explain variation in care patterns for the target population of the APM, such as whether a procedure was elective or precipitated by a fall, or markers of disease severity.

APMs that use historical data to set financial targets also need to account for changes in care and new treatments that occur over time. This can be accomplished by updating the comparison population in later years of the model by using a more recent historical period, through the use of a trend factor, or a combination thereof. For example, Comprehensive Care for Joint Replacement (CJR) Model performance years 1 and 2 target prices were based on 2012-2014 historical data, but performance years 3 and 4 target prices are based on 2014-2016 target data. Updating the historical period will naturally account for changes in utilization that occur over time, but may make it more difficult for participants to achieve improvements. It also may still be necessary to propose a trend factor to account for unit price changes. Alternatively, developers can consider calculating target prices from a set historical period for the duration of the model with a trend factor that accounts for both price and utilization changes over time. However, trend factors that combine changes in utilization and prices can be perceived as a “black box” if the calculation of the trend factor is not clear to participants.

APM participants may be more advanced than nonparticipants and may adopt new drugs or technologies that emerge throughout the course of the APM. If this quicker adoption is not reflected in the trend factor or by updating the historical period, it may be necessary to create an explicit adjustment to offset the additional cost that can accompany novel treatments.

Even in well-designed payment methodologies, it may be necessary to incorporate financial risk mitigation techniques to ensure participants are able to manage their risks. It may be necessary to mitigate risk in the case of extreme variability in patient spending. This can be accomplished using stop-loss arrangements that limit spending for included services for a given beneficiary beyond a certain threshold, or by excluding beneficiaries with excessive spending. Some APMs also incorporate aggregate stop-loss, capping the maximum savings or losses at a percentage of the benchmark. This can protect the participant from extreme losses, but also may decrease the gains they achieve with excellent performance.

It may be infeasible to make substantial changes to the existing claims payment systems that would be necessary to implement the ideal payment methodology. When that is the case, it is important to describe the ideal payment methodology and acknowledge that the proposed methodology is designed both to conform to existing payment systems and to align financial incentives similarly to the ideal type of payment.

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7 More information on the CMS-HCC risk adjustment model is available at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Risk-Adjustors.html.
8 For example, the NGACO model uses the CMS-HCC risk adjustment model. See https://innovation.cms.gov/Files/x/nextgenaco-methodology.pdf.
9 For example, CMS incorporates a novel therapies adjustment in OCM to increase the target price of participants who use novel therapies relatively more than nonparticipants, as measured by the proportion of total episode spending attributable to novel oncology therapies. See https://innovation.cms.gov/Files/x/ocm-pp3beyond-pymeth.zip.
SAVINGS AND TYING PAYMENT TO QUALITY
As mentioned above, Advanced APMs require that payment be tied to quality measures. That said, it is not required that payment be tied to all of the quality measures in the APM. Thus, it is not unusual to propose linking payment with a subset of quality measures for which there is existing data that can be used to create benchmark quality scores or with novel quality measures that closely align with care furnished in the APM. When novel measures are included, entities developing APMs should consider paying for reporting in the first few performance periods. Data collected in the early performance periods can then be used to calculate quality score benchmarks for later performance periods.

In APMs with retrospective financial reconciliations, participants who reduce spending below the financial targets and achieve high quality scores will receive a larger performance-based payment relative to participants with lower quality scores. When designing an APM, it is also possible to link participant repayment with quality. Doing so allows participants with high quality scores to pay back a smaller portion of the amount by which spending exceeds the financial target relative to participants with worse quality scores. If the proposed APM includes prospective payments, the level of those payments can be set to fluctuate based on participant quality scores.

Once a methodology has been finalized, simulating the payment methodology with existing data can demonstrate observable outcomes and the potential for the APM to generate performance-based payments for participants and reductions in spending for the payer. The simulation can also be used to calculate an appropriate discount for the payer or to set a shared savings rate to split savings between the payer and participants.

Discussion
While the focus in this paper was on APMs designed primarily for submission to the PTAC and implementation in a Medicare fee-for-service population, the clinical and financial constructs discussed can also be applied to APMs that are focused on other payers and commercially insured populations.

If there is not already an APM that works for a certain specialty, there may be many opportunities worth pursuing. Ultimately, entities considering APM development must weigh the benefits of designing and implementing an APM with the cost and liabilities of doing so. In APMs, it is possible for participants to achieve financial rewards (such as performance-based payments or shared savings payments) and for payers to reduce total spending. Second, if a participant in an Advanced APM achieves the necessary patient or payment threshold for Medicare beneficiaries (and in the future other payers), the participant can receive an incentive payment based on its Medicare Part B payments. Third, participants in Advanced APMs may be able to limit their reporting burden through the Merit-based Incentive Payment System (MIPS).

Still, there are many potential liabilities in designing an APM. There is an inherent cost to develop the APM, requiring concentrated effort from many team members to develop an APM that may not be implemented. If the APM is implemented, there are costs associated with implementation for both participants and payers. For participants, they include the cost of hiring or training care management staff and enhanced information technology for reporting. For payers, the costs include any additional payments that are not linked with shared savings and making changes to existing payment and claims processing systems. Advanced APMs also require participants to bear downside risk when spending exceeds the financial target, and it is not guaranteed that any participant will reduce spending. Lastly, there are costs associated with quality reporting, even if the costs may be less in an APM than in MIPS. Organizations interested in developing APMs should carefully assess these factors to determine whether there is reasonable likelihood that the benefits will outweigh the costs in their specific contexts. Additionally they should consider the importance of appropriately designing the APM payment methodology to maximize the chances of financial success under the APM.

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